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Appl No. 10/715,652
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Response to Final Office Action

REMARKS/ARGUMENTS

Pending Claims

Upon entry of the present Amendment, Claims 1-4, 6-9, and 11 will have been amended, and Claims 12-15 newly added. Accordingly, Claims 1-15 are currently pending.

By the present Amendment and Remarks, applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the Office Action and allowance of the present application at the Examiner's earliest convenience.

Summary of the Official Office Action

Claim Rejections

Claims 1-11 were rejected under 35 U.S.C. 102(b) as being anticipated by Torpey et al. (6,290,330).

Traversal of Rejection under 35 U.S.C. 102(b)

Applicant respectfully traverses the rejection of Claims 1-11 as being anticipated by Torpey et al. (6,290,330) [hereinafter "Torpey"].

Turning to the specific claim language, amended independent Claim 1 is directed to a method for recording, on one recording medium, an image and a positional information image, using a recording apparatus that applies a recording material onto the

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recording medium, the method comprising obtaining dot data of a color material forming the positional information image, according to record data for recording the positional information image wherein the positional information image includes information designating positions where positional information is recorded on the recording medium, converting dot data of a color material forming said image so that the dot density of said image is reduced when a position of the dot data forming said image and a position of the dot data forming said positional information image overlap, on the basis of the dot data of the color material forming the positional information, and recording the images on the recording medium, according to the record data of the positional information image and the converted data of the other image.

The present invention of amended independent Claim 1 describes an image processing apparatus for obtaining dot data of a color material to form a positional information image. According to the present invention, dot data of an image is not printed when the dot data of the image overlaps with the dot data of the positional information image.

According to the Office Action., Torpey discloses all the basic structure of the present invention. Torpey, however, is not seen to describe or disclose the present invention's feature of not printing dot data of an image when the dot data of the image overlaps with the dot data of a positional information image.

Torpey is seen to provide a system and method for reducing intercolor bleeding that occurs at the interface between areas printed with inks having substantially different properties and to providing a method for maintaining edge quality at the interface of

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printed areas with non-printed areas (see Abstract, column 1 lines 18-20, column 2 lines 23-25, and column 4 lines 47-53).

To reduce intercolor bleeding, the invention described in Torpey carries out a process that operates to detect black/color interfaces where intercolor bleeding is likely to occur and to modify the pixels that are to be printed near the borders of the interfaces. The process comprises identifying an interface between a black area and a color area, modifying the pixel pattern in a black border region in the black area, and modifying the pixel pattern in a color border region in the color area.

According to the Office Action, Figure 2, steps 30, 32, and 34 of Torpey teach the present claim's feature of obtaining dot data of a color material forming the positional information image, according to record data for recording the positional information image.

Figure 2 depicts a flowchart illustrating a method for reducing intercolor bleeding. In particular, step 30 identifies an interface between a black area and a color area, and a determination is made whether a given pixel is within the black or color border region. Step 32 defines a width N of the black border region near the black/color interface identified in step 30. Step 34 defines a width M of the color border region near the black/color interface identified in step 30. The purpose of these three steps is to identify an interface between a black area and a color area and based on this identification, to define a black border region width and a color border region width near the identified black/color interface. Nothing in any of these steps, either alone or in combination, is seen to describe the present claim's feature of obtaining dot data of a color material

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forming the positional information image, according to record data for recording the positional information image, wherein the positional information image includes information designating positions where positional information is recorded on the recording medium.

According to the Office Action, Figure 2, steps 36 and 38, of Torpey teach the present claim's feature of converting dot data of a color material forming the image so that the dot density of the other image is reduced, on the basis of the dot data of the color material forming the positional information. Steps 36 and 38 modify the pixel pattern within the above described N-pixel black border and the M-pixel color border regions respectively. The purpose of these two steps is to modify pixels within the respective black/color border regions so as to reduce intercolor bleeding at the black/color interface, as well as lessen any perceived dissimilarities between the border region and the interior region of the corresponding image. Nothing in either of these steps, alone or in combination, is seen to describe the present claim's feature of converting dot data of a color material forming said image so that the dot density of said image is reduced when a position of the dot data forming said image and a position of the dot data forming said positional information image overlap, on the basis of the dot data of the color material forming the positional information.

According to the Office Action, column 6, lines 17-20 of teach the present claim's step of recording the images on the recording medium, according to the record data of the positional information image and the converted data of the other image. Column 6, lines 17-20, describes that window 42 of Figure 3 shows the pixel block of window 40 of Figure 3 after a substitution operation, where within a two pixel border, every other pixel

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in the black separation is turned off and replaced with alternating cyan and magenta pixels in the composite image. Nothing in Torpey is seen to describe the present claim's feature of recording the images on the recording medium, according to the record data of the positional information image and the converted data of said image.

Because Torpey lacks at least the above-noted features of the present invention, Applicant submits that Torpey fails to disclose each and every feature recited in amended independent Claim 1. Therefore, Applicant submits that the rejection of at least amended independent Claim 1 is improper and respectfully requests that the rejection be withdrawn.

Amended independent Claim 6 is directed to a recording system for recording an image and a positional information image on one recording medium, the system comprising recording apparatus for performing recording by applying a recording material onto the recording medium according to image data, a transmitter for transmitting the image data to the recording apparatus, acquisition means for obtaining dot data of a color material forming the positional information image, according to record data for recording the positional information image, wherein the positional information image includes information designating positions where positional information is recorded on the recording medium, and conversion means for converting dot data of a color material forming said image so that the dot density of said image is reduced when a position of the dot data forming said image and a position of the dot data forming said positional information image overlap, on the basis of the dot data of the color material forming the positional information.

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Amended independent Claim 11 is directed to an image processing apparatus for recording an image by applying a recording material onto a recording medium, the image processing apparatus performing processing for recording, on one recording medium, a positional information image and the image, the image processing apparatus comprising acquisition means for obtaining dot data of a color material forming the positional information image, according to record data for recording the positional information image, wherein the positional information image includes information designating positions where positional information is recorded on the recording medium, and data processing means for processing dot data of a color material forming said the other image so that the dot density of said image is reduced when a position of the dot data forming the image and a position of the dot data forming the positional information image overlap, on the basis of the dot data of the color material forming the positional information.

Independent Claims 6 and 11 were rejected based on the rejection of independent Claim 1. As such, Applicant submits that Torpey fails to disclose each and every feature recited in amended independent Claims 6 and 11. Therefore, Applicant submits that the rejections of Claims 6 and 10 are improper and respectfully requests the rejections be withdrawn.

Furthermore, Applicant submits that Claims 2-5 and 7-10 are allowable at least for the reason that these claims depend from either allowable base Claim 1 or allowable base Claim 6 and recite additional features that further define the present invention. In addition, since newly added Claims 12-15 depend from allowable base Claim 11 and

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recite additional features that further define the present invention, newly added Claims

12-15 are believed allowable.

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CONCLUSION

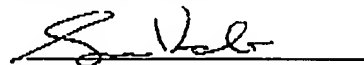
Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability, and respectfully requests the Examiner to indicate the allowance of such claims as the Examiner's earliest convenience.

In view of the foregoing, it is submitted that the reference of record does not anticipate or render obvious the Applicant's invention as recited in Claims 1-10. The applied reference has been discussed and distinguished, while significant claimed features of the present invention have been pointed out. Further, any amendments to the claims which may have been made in this response and which have not been specifically noted to overcome a rejection based upon prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein is respectfully requested and now believed to be appropriate.

Applicants' undersigned attorney may be reached at (949) 932-3329. All correspondences should be directed to the below-listed address.

Respectfully submitted,



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